

Georgetown County Early Action Plan for the 8-Hour Ozone Standard

Background

In 1997, the Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standard (NAAQS) for Ozone from a one-hour standard to an 8-hour standard. This was done to reflect the latest understanding of the effects of ozone exposure and provide public health protection with adequate margin of safety. EPA will be designating areas as attainment (meeting the standard) or non-attainment (not meeting the standard) in April of 2004. This designation will be based on the most recent three years of monitoring data (i.e., 2001, 2002, 2003). The Department of Health and Environmental Control (DHEC) has an intensive monitoring network covering the state and routinely monitors for ozone during the months of April through October. This time period is often referred to as the "Ozone Season." If an area is designated non-attainment, the Clean Air Act (CAA) requires states to revise their State Implementation Plan (SIP) outlining how the area will return to attainment within a certain time period. If EPA designates areas in South Carolina as non-attainment in April of 2004, a revision to the South Carolina SIP will be due no later than 2007. Additionally, once an area is designated as non-attainment, the CAA has specific requirements that must be implemented. These requirements affect industry, economic development, and transportation. One requirement, Non-attainment New Source Review sets out the level of emissions reductions required for new and modified industrial facilities. Another requirement of non-attainment areas is to coordinate local transportation and air quality planning to ensure that transportation plans, programs and projects are consistent with air quality goals. According to the CAA, transportation plans, programs, and projects cannot create new violations of the Federal air quality standards; increase the frequency or severity of existing violations of the standard; or, delay attainment of standards.

The above approach is commonly referred to as the "traditional" approach. While safeguards for areas to return to attainment are included, certain prescriptive requirements may not be appropriate for all areas designated non-attainment for the 8-hour ozone standard. As a result, EPA provided an option for areas that were meeting the one-hour standard to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than currently federally mandated. This option offers a more expeditious time frame for achieving emissions reductions, while providing "fail-safe" provisions for the area to revert to the traditional SIP process if specific milestones are not met. EPA will move forward with the designation process (attainment or non-attainment) but will defer the effective date, thus the prescriptive requirements of non-attainment designations, provided all terms and conditions of an Early Action Compact (EAC) are being met.

Forty-five counties in South Carolina elected to participate in the development of an Early Action State Implementation Plan (EAP). Participants in the EAC include the county, DHEC and the EPA. All of these parties agree to work together to implement federal, state and local emissions control measures that will allow the non-attainment areas to attain the 8-hour ozone standard earlier and therefore avoid implementing costly prescriptive measures. The EAC requires that all counties submit a local Early Action Plan to DHEC by March 31, 2004.

Although our county is not a potential area to be designated non-attainment for the 8-hour ozone standard, other areas in South Carolina may be designated non-attainment. As air knows no boundaries, implementation of emission reduction strategies and support of federal and state rules and regulations will help to provide cleaner air sooner to citizens of South Carolina.

What is Ozone?

Ozone is a gas that occurs both in the Earth's upper atmosphere and at ground level. Ozone is one of six criteria pollutants used by the EPA as an indicator of air quality. Depending on where ozone is found, it can be good or bad. Occurring naturally in the upper atmosphere, ozone acts as a shield from the sun's harmful ultraviolet rays. However, ground-level ozone is a concern during the summer months when the weather conditions are favorable for producing ozone. Ozone is formed by chemical reactions between volatile organic compounds (VOCs) and oxides of nitrogen (NOx) in the presence of sunlight. Ozone is a major ingredient of smog.

Ozone Health Effects

Ozone can cause permanent damage to the respiratory system. Active children are at highest risk from ozone exposure because they often spend a large amount of time outdoors. Active adults of all ages who exercise or work outdoors have an increased risk of exposure to elevated levels of ozone. People with asthma or other respiratory diseases are particularly sensitive to ozone exposure.

Sources of NOx and VOCs

NOx and VOCs come from emissions from the following sources: stationary, area, mobile and natural. Stationary sources include larger permitted industry and power plants. Area sources are small, stationary and non-transportation sources that collectively contribute to air pollution. Area sources include gas stations (emit NOx) and dry-cleaners (emit VOCs). Mobile sources are divided into two categories, on-road and off-road. The off-road mobile sources include trains, ships, boats, airplanes, lawn equipment, and construction equipment. On-road mobile sources include cars, trucks, and buses. Natural sources for VOCs are released from vegetation, mostly trees in South Carolina. Natural sources for NOx are very rare and include emissions from soil, lightning, and oceans.

Stakeholder Involvement

Stakeholder meetings were held on the following dates: May 6, August 7, and November 3 of 2003. Refer to the attached agendas, invitation lists, and sign-in sheets for information regarding the stakeholder process and a complete listing of the stakeholder meetings and public outreach initiatives.

Emission Reduction Strategies

Through the development and implementation of this plan, local emission reduction strategies that are economically feasible and that make sense for the county will be implemented no later than April 2005. In doing so, these efforts should assist the state in achieving the 8-hour ozone standard by December 31, 2007, and maintaining the standard beyond 2012.

A number of federal control measures are in place and/or will be phased in over the next several years. These programs include the Tier II and Low Sulfur Gasoline and also the NOx SIP call. All of these programs have been developed to help areas attain air quality standards.

The state is also proposing new and/or modifications to regulations that will assist non-attainment areas. The State programs could include a regulation that would result in VOC and NOx reductions; modifications to the open burning regulations and a process to assure transportation plans, programs, and projects consider air quality goals.

Attachment 1 contains a list of emission reduction strategies that will be implemented by the county. While it may not be possible to determine emissions reductions for each of the strategies included, directionally sound strategies have been selected and the county anticipates the cumulative impact of adopting each of these strategies will assist in maintaining the standard.

Maintenance

The county will continue to address strategies that will assist in long-term maintenance of the 8-hour ozone standard. DHEC will continue to provide the air quality monitoring necessary to determine attainment of the 8-hour ozone standard. Yearly, at the end of each ozone season, there will be a review and evaluation to determine the effectiveness of the strategies adopted. If necessary, additional emission reduction strategies may be adopted. Maintenance of the standard will depend upon the success of emission reduction strategies implemented as well as federal and state initiatives.

Attachment 1
Georgetown County Early Action Compact
List of Emission Reduction Strategies

According to the latest 8-hour ozone monitoring data, Georgetown County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, Georgetown County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies were identified.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
<i>New Employee Orientation</i>	<i>Encourage employees to be ozone friendly during the new employee orientation.</i>	<i>Not available</i>	<i>In Progress</i>	<i>Department wide</i>
<i>Assign Ozone Action Coordinators</i>	<i>Holley Causey & Amy McCutcheon have been assign as the ozone action coordinators.</i>	<i>Not available</i>	<i>March 2003</i>	<i>Georgetown County</i>
<i>Distribute informational flyers</i>	<i>Flyers concerning ozone issues and helpful individual actions will be given to county employees and citizens.</i>	<i>Not available</i>	<i>April 2004</i>	<i>Georgetown County</i>
<i>Ozone awareness articles in Department Newsletters</i>	<i>The action coordinators will promote ozone awareness by developing articles for the County newsletter.</i>	<i>Not available</i>	<i>1st Quarter Newsletter 2004</i>	<i>Department wide</i>
<i>E-mail county employees with Ozone Action Days</i>	<i>E-mails will be sent to each county employee on the county website notifying ozone action alert days.</i>	<i>Not available</i>	<i>April 2004</i>	<i>Georgetown County</i>
<i>Include information on ozone awareness on county website</i>	<i>Information will be added to the county website to educate the public about ozone awareness.</i>	<i>Not available</i>	<i>April 2005</i>	<i>County wide</i>

<i>Refuel vehicles at night when possible</i>	<i>Mosquito Control will have night shift refuel spray units at night.</i>	<i>Not available</i>	<i>In Progress</i>	<i>Department Wide</i>
<i>Encourage employees not to top off tank when refueling</i>	<i>Employees will be reminded in staff meetings not to top off tank when refueling.</i>	<i>Not available</i>	<i>April 2004</i>	<i>Department Wide</i>
<i>Institute energy conservation measures in county offices</i>	<i>Signs will be posted and reminders sent to employees to follow energy conservation measures</i>	<i>Not available</i>	<i>April 2004</i>	<i>Department Wide</i>
<i>Develop bike trail system in county</i>	<i>A bike trail system is being constructed in parts of the county.</i>	<i>Not available</i>	<i>In Progress</i>	<i>County Wide</i>
<i>Implement smoking vehicle program</i>	<i>Have First Vehicle Services implement a smoking vehicle program and conduct checks on leaking gas caps</i>	<i>Not available</i>	<i>April 2004</i>	<i>Department Wide</i>
<i>Implement reduction of idle or no idle policy</i>	<i>Have Director implement no idle standard operating procedure</i>	<i>Not available</i>	<i>April 2004</i>	<i>Department Wide</i>
<i>Develop energy element in comprehensive plan</i>	<i>An energy element should be implemented in the county comprehensive plan</i>	<i>Not available</i>	<i>April 2005</i>	<i>County Wide</i>
<i>Encourage employees to use alternatives for transportation</i>	<i>Encourage employees to carpool or bike to work</i>	<i>Not available</i>	<i>April 2004</i>	<i>County Wide</i>
<i>Encourage employees to bring lunch to work or order in</i>	<i>Have menus of restaurants that provide delivery service in all county break rooms</i>	<i>Not available</i>	<i>In Progress</i>	<i>County Wide</i>
<i>Educate citizens about air quality issues</i>	<i>Educate citizens through informational flyers at recycling center information booths</i>	<i>Not available</i>	<i>April 2004</i>	<i>County Wide</i>
<i>Include air quality lessons in EEC Curriculum</i>	<i>Teach lessons from the Action for a cleaner tomorrow book at the EEC</i>	<i>Not available</i>	<i>In Progress</i>	<i>Department Wide</i>
<i>Place standard catalytic reductions on two units</i>	<i>Two units will be equipped with SCR to reduce emissions</i>	<i>90% reduction in emissions</i>	<i>In Progress</i>	<i>Santee Cooper</i>
<i>Electric cars will be purchased for on site mobilization</i>	<i>Electric cars will be used for transportation at the office</i>	<i>Not available</i>	<i>In Progress</i>	<i>Santee Cooper</i>

<i>Purchase alternative fuel vehicles as company cars</i>	<i>Increase fleet of company cars that use E80 fuel for transportation</i>	<i>Not available</i>	<i>In Progress</i>	<i>Santee Cooper</i>
<i>Providing flexible hours of operation for employees</i>	<i>Company will have a flexible working schedule for employees</i>	<i>Not available</i>	<i>In Progress</i>	<i>Santee Cooper</i>
<i>Employees will be allowed to work at home</i>	<i>Company will allow employees to work at home over the internet</i>	<i>Not available</i>	<i>April 2004</i>	<i>Santee Cooper</i>
<i>Implement Residential Development Ordinance</i>	<i>Establish an ordinance that requires new developments over 10 lots to install a bike trail or sidewalks.</i>	<i>Not available</i>	<i>January 2005</i>	<i>County Wide</i>
<i>Adopt a resolution thanking local industries for their efforts in reducing air pollution</i>	<i>Thank International Paper and Georgetown Steel for their past efforts in reducing air pollution and strongly encouraging them to do more</i>	<i>Not available</i>	<i>In Progress</i>	<i>City of Georgetown</i>

Document progress in developing stakeholder process:

Check all of the following statements that apply to your county.

1.	X	Attached is a list of the stakeholders.
2.	X	A stakeholder meeting(s) was held on <u>05/06/03, 08/07/03, 11/03/03</u> . (May attach copy of minutes, if available.)
3.	X	A stakeholder meeting is planned for <u>the near future</u> .
4.	X	DHEC representatives attended the stakeholder meeting.
5.	X	DHEC representatives were consulted regarding the stakeholder process.
6.	X	The stakeholders were consulted regarding the emission reduction strategies under consideration

Describe public outreach activities (press coverage, public presentations, websites, etc.)

Check all of the following statements that apply to your county.

1.	X	The media has been invited to attend stakeholder meetings.
2.	X	A press release regarding the 8-hour ozone standard and/or activities related to the Early Action Compact has been issued.
3.	X	Meetings in which the 8-hour ozone standard and/or activities related to the Early Action Compact were open to the public (i.e., county council meetings) were held on <u>05/06/03, 08/07/03, and 11/03/03</u> . (May attach copy of agenda and/or minutes if available.)
4.		There has been no press coverage for our activities.